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10/810,507	03/26/2004	Stephane Cayla	BGC:0002US (N2325-US)	8147
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TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631			EXAMINER	
			GELIN, JEAN ALLAND	
			ART UNIT	PAPER NUMBER
			2617	
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			12/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/810,507

Applicant(s)

CAYLA ET AL.

Examiner

JEAN A. GELIN

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/25/08.
2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-15 and 17-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 3-15, 17-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Inventor's Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This is in response to the Applicant's arguments and amendments filed on January 24, 2008 in which claims 1, 2-15, and 17-20 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 6-15, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen (US 7,016,372) in view of Riihinen et al. (US 6,697,331).

Regarding claims 1, 13, and 15, Haartsen teaches an apparatus for transmitting data blocks on a communications channel having a radio link between two stations (i.e., master and slave) including a user equipment (e.g., slave unit), comprising: means for receiving first data blocks from the user equipment (i.e., master has means to receive packet from the slave, col. 8, lines 16-65); means for transmitting second data blocks to the user equipment (i.e., packets are alternatively transmitted from one unit to another unit and vice versa, (col. 8, lines 16-65); and means for dynamically setting a polling interval for the transmission of polling messages to the user equipment after transmission of the second data blocks, the polling interval being set in accordance with at least one of: a size of one or more data blocks received by the apparatus from the user equipment, a size of one or more blocks transmitted from the apparatus to the user

equipment, and a service to which the user equipment is subscribed (i.e., master dynamically adjusts the polling interval based on traffic condition, col. 7, lines 25-41 and col. 8, line 30 to col. 9, line 65; the master can change the polling interval between T_{min} and T_{max} where T_{min} is determined by the throughput requirements, and dynamically adjusting the polling interval based on the result of the polling operation col. 10, lines 13-62).

Haartsen does not specifically teach means for transmitting polling messages to the user equipment acknowledges receipt of the second data blocks.

However, the preceding limitation is known in the art of communications. Riihinen teaches a poll message is transmitted to the receiver by setting a poll bit in the header of a segment, upon reception of a poll message the receiver checks for missing segment; if a segment is missing, the transmitter sends an acknowledgement message and the segment is retransmitted (col. 2, line 54 to col. 3, line 34); if a second lost segment is lost during the timed interval, the receiver sends a acknowledgement message to the transmitter which retransmits the lost segment of data packets according to the rule of the poll timer (col. 3, lines 50-61 and col. lines 8-25). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Riihinen within the system of Haartsen in order to automatically transmit the lost segment to the receiver for maintaining the integrity of transmitted data.

Regarding claims 3, 17, Haartsen in view of Riihinen teaches all the limitations above. Riihinen further teaches the means for dynamically setting a polling interval is

adapted to set the polling interval for each user equipment independently (i.e., time out for poll timer is dynamically determined, col. 4, lines 9-25).

Regarding claims 6, 19, Haartsen in view of Riihinen teaches all the limitations above. Haartsen further teaches the user equipment comprises one or more user equipments having a first priority and one or more user equipments having a second priority lower than the first priority, and the means for dynamically setting a polling interval is adapted to reduce the polling interval when the user equipments having a first priority are not transmitting (col. 7, lines 42-59 and col. 9, lines 25-67).

Regarding claim 7, Haartsen in view of Riihinen teaches all the limitations above. Riihinen further teaches a buffer means for buffering data blocks to be transmitted to the UE by the apparatus (i.e., inherently master has a buffer or storage device to buffer packet prior to transmit to the slave device, col. 4, lines 9-25).

Regarding claim 8, Haartsen in view of Riihinen teaches all the limitations above. Riihinen further teaches the means for dynamically setting a polling interval is adapted to set the polling interval in accordance with an occupancy state of the buffer means (col. 4, lines 9-25).

Regarding claims 9, 20, Haartsen in view of Riihinen teaches all the limitations above. Haartsen further teaches the user equipment is located in a radio coverage area of a cellular mobile radio network (col. 4, lines 6-26) and the means for dynamically setting a polling interval is adapted to set the polling interval in accordance with at least an estimated used transmission capacity value for the radio coverage area (col. 8, lines 16-65 and col. 10, lines 31-47).

Regarding claim 10, Haartsen in view of Riihinen teaches all the limitations above. Haartsen further teaches the means for dynamically setting a polling interval includes a storage unit for storing information relating to user equipments (i.e., scheduled poll event for the slave, col. 7, lines 25-41).

Regarding claim 11, Haartsen in view of Riihinen teaches all the limitations above. Haartsen further teaches the storage unit includes data relating to any of: a user equipment identifier, a quality of service profile associated with a user equipment, a number of user equipments located within a geographical area (col. 8, lines 44-65).

Regarding claim 12, Haartsen in view of Riihinen teaches all the limitations above. Haartsen further teaches wherein the means for dynamically setting a polling interval is adapted to set the polling interval in accordance with a quality parameter of signals received over the radio link (col. 7, lines 25-69).

Regarding claim 14, Haartsen in view of Riihinen teaches all the limitations above. Haartsen further teaches the apparatus is a packet control unit which has a first input for data from an asynchronous interface and a second input for data from a synchronous interface (col. 4, line 60 to col. 5, line 23, col. 17, lines 31-46).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen (US 7,016,372) in view of Riihinen et al. (US 6,697,331) further in view of Schoch (US 5,973,609).

Regarding claims 4, 18, Haartsen in view of Riihinen teaches all the limitations above. Haartsen further all slaves receive the packets sent by the master on the forward link, col. 8, lines 45-65). Haartsen does not specifically teach the means for dynamically setting a polling interval is adapted to set the polling interval for a group of user equipments.

However, the preceding limitation is known in the art of communication. Schoch teaches when the system becomes less heavily loaded, users are divided into groups that are then polled, the size of the groups is selected on the number of users having data to transmit, a polling cycle is completed when all groups have been polled (col. 2, lines 15-52, col. 5, line 63 to col. 6, line 13), and polling interval (col. 10, lines 47-67). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Schoch within the system Haartsen and Riihinen in order to dynamically change the group sizes and mappings in response to system activity, and increase the efficiency of the system by polling users per group.

Regarding claim 5, Haartsen in view of Riihinen teaches further in view of Schoch teaches all the limitations above. Schoch further teaches the group of user equipments is defined by a subscription to a service (col. 3, lines 1-14 and col. 5, line 63 to col. 6, line 13).

Response to Arguments

6. Applicant's arguments with respect to claims 1, 2-15, and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hashimoto

US 7,146,426

12/05/2006

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN A. GELIN whose telephone number is (571)272-7842. The examiner can normally be reached on 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jean A Gelin/
Primary Examiner, Art Unit 2617
December 3, 2008

Application Number**Application/Control No.**

10/810,507

Examiner

JEAN A. GELIN

**Applicant(s)/Patent under
Reexamination**

CAYLA ET AL.

Art Unit

2617